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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/735,745	12/13/2000	Kyou-Woong Kim	678-576 (P9645)	7547

7590 09/10/2003

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EXAMINER

MILLER, BRANDON J

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 09/10/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/735,745

Applicant(s)

KIM, KYOU-WOONG

Examiner

Brandon J Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 6/30/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 8-9, and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hardouin in view Murto and Heinonen.

Regarding claim 1 Hardouin teaches a method for controlling a paging alert level of a mobile station in a mobile communication system (see abstract and col. 1, lines 45-50 and col. 2, lines 23-28). Hardouin teaches setting information of a type and a level of a paging alert tone of a mobile station and generating, in a mobile station, a paging alert tone according to the information of the type and the level of a paging alert tone (see col. 2, lines 60-67 and col. 3, lines 20-30). Hardouin teaches transmitting setting information from a base station to a mobile station within a cell of the base station (see col. 2, lines 34-36 & 37-46). Hardouin does not teach a broadcast channel message, transmitting a broadcast channel message from a base station to a plurality of mobile stations within a cell of a base station, or alerting a user of an entrance into a paging alert level restricted area. Murto teaches a broadcast channel message and transmitting a broadcast channel message from a base station to a plurality of mobile stations within a cell of a base station (see abstract, col. 3, lines 44-50 and col. 4, lines 14-16). Heinonen teaches alerting a user of an entrance into a paging alert level restricted area and a broadcast

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control channel used to control users in a specific area (see abstract, col. 1, lines 50-60, col. 2, lines 1-7, col. 3, lines 6-10 and col. 4, lines 5-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the Hardouin adapt to include a broadcast channel message, transmitting a broadcast channel message from a base station to a plurality of mobile stations within a cell of a base station, and alerting a user of an entrance into a paging alert level restricted area because this would allow unnecessary signaling caused by paging messages between a base station and a mobile station in a mobile communication system.

Regarding claim 2 Hardouin teaches transmitting setting information from a base station to a mobile station within a cell of the base station (see col. 2, lines 34-36 & 37-46). Hardouin teaches controlling a paging alert level of a mobile station in a mobile communication system having a base station, which transmits a signal to a mobile station (see abstract and col. 1, lines 45-50 and col. 2, lines 23-28). Hardouin teaches receiving information of a type and a level of a paging alert tone of a mobile station and determining whether a mobile station is located in a paging alert level-restricted area (see abstract, col. 1, lines 54-60 and col. 2, lines 37-46). Hardouin teaches generating a paging alert tone according to information of the type and the level of a paging alert tone, if a mobile station is located in a paging alert level-restricted area (see abstract and col. 2, lines 37-46). Hardouin does not teach transmitting a signal to a plurality of mobile stations within a cell, receiving information of a paging alert tone from a base station through a broadcast channel, or alerting a user of an entrance into a paging alert level restricted area. Murto teaches transmitting a signal to a plurality of mobile stations within a cell or receiving information of a paging alert tone from a base station through a broadcast channel (see abstract, col. 3, lines 44-50 and col. 4, lines 14-16). Heinonen teaches alerting a user of an

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entrance into a paging alert level restricted area and a broadcast control channel used to control users in a specific area (see abstract, col. 1, lines 50-60, col. 2, lines 1-7, col. 3, lines 6-10 and col. 4, lines 5-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the Hardouin adapt to include transmitting a signal to a plurality of mobile stations within a cell, receiving information of a paging alert tone from a base station through a broadcast channel, and alerting a user of an entrance into a paging alert level restricted area because this would allow unnecessary signaling caused by paging messages between a base station and a mobile station in a mobile communication system.

Regarding claim 3 Hardouin teaches a paging alert type distinguishable according to surrounding features (see col. 1, lines 55-60). Murto teaches a broadcast channel message that is distinguishable according to surrounding features of a base station (see abstract, col. 3, lines 44-50 and col. 4, lines 14-16).

Regarding claim 8 Hardouin teaches generating a paging alert tone according to a paging alert level designated upon receipt of an incoming call (see col. 3, lines 62-67 and col. 4, lines 1-8). Murto teaches a received broadcast channel message (see abstract, col. 3, lines 44-50 and col. 4, lines 14-16).

Regarding claim 9 Hardouin, Murto, and Heinonen teach a device as recited in claim 2 except for automatically restoring a paging alert level to a paging alert level previously set by a user, when a mobile station moves out of a paging alert level-restricted area. Hardouin does teach sensors that control paging alert levels when a mobile station moves in or out of a paging alert level-restricted area (see col. 2, lines 36-46). Hardouin does teach a paging alert level set by a user (see col. 3, lines 40-44). It would have been obvious to one of ordinary skill in the art

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at the time the invention was made to make the invention adapt to include automatically restoring a paging alert level to a paging alert level previously set by a user, when a mobile station moves out of a paging alert level-restricted area because this would allow a paging alert level to be controlled without user intervention.

Regarding claim 12 Hardouin teaches a method for controlling a paging alert level of a mobile station in a mobile communication system (see abstract and col. 1, lines 45-50 and col. 2, lines 23-28). Hardouin teaches generating, in a mobile station, paging alert class information according to the information of the type and the level of a paging alert tone (see col. 2, lines 60-67 and col. 3, lines 20-30). Hardouin teaches setting a paging alert tone of a mobile station in accordance with received paging alert class information (see col. 3, lines 30-44). Hardouin teaches transmitting setting information from a base station to a mobile station within a cell of the base station (see col. 2, lines 34-36 & 37-46). Hardouin does not teach a broadcast channel message, transmitting and receiving a broadcast channel message from a base station to a plurality of mobile stations within a cell of a base station, or alerting a user of an entrance into a paging alert level restricted area. Murto teaches a broadcast channel message and transmitting a broadcast channel message from a base station to a plurality of mobile stations within a cell of a base station (see abstract, col. 3, lines 44-50 and col. 4, lines 14-16). Heinonen teaches alerting a user of an entrance into a paging alert level restricted area and a broadcast control channel used to control users in a specific area (see abstract, col. 1, lines 50-60, col. 2, lines 1-7, col. 3, lines 6-10 and col. 4, lines 5-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the Hardouin adapt to include a broadcast channel message, transmitting and receiving a broadcast channel message from a base station to a plurality of

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mobile stations within a cell of a base station, and alerting a user of an entrance into a paging alert level restricted area because this would allow unnecessary signaling caused by paging messages between a base station and a mobile station in a mobile communication system.

Regarding claim 13 Hardouin teaches determining whether a mobile station is in an alert level restricted area (see col. 3, lines 45-60). Hardouin also teaches receiving paging alert class information to set a paging alert tone to a restricted mode if a mobile station is in an alert level restricted area (see col. 1, lines 48-55 and col. 3, lines 30-40).

Regarding claim 14 Hardouin teaches informing a user of a mobile station that a paging alert tone of a mobile station is set to a restricted mode (see col. 3, lines 30-40).

Regarding claim 15 Hardouin teaches a device as recited in claim 14 except for alerting a user to accept or reject a restricted mode. Hardouin does teach alerting a user to a choice to change paging alert tone in a restricted mode (see col. 3, lines 40-44). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the invention adapt to include alerting a user to accept or reject a restricted mode because this would allow for a user to determine paging alerting information for different areas.

Claims 4-6 and 10-11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hardouin in view Murto, Heinonen, and Merriam.

Regarding claim 4 Hardouin, Murto, and Heinonen teaches a device as recited in claim 2 except for rejecting restriction of a paging alert level designated in a broadcast channel message within a predetermined time. Heinonen does teach a broadcast channel message (see col. 3, lines 6-11). Merriam teaches rejecting restriction of a paging alert level designated within a predetermined time (see col. 5, lines 19-22). It would have been obvious to one of ordinary skill

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in the art at the time the invention was made to make the invention adapt to include rejecting restriction of a paging alert level designated in a broadcast channel message within a predetermined time because this would allow a paging alert level to be controlled without user intervention and the notification thereof.

Regarding claim 5 Merriam teaches a mobile station display message indicating that a mobile station is presently in a paging alert level-restricted area (see abstract, col. 2, lines 40-41 and col. 7, lines 15-16 & 20-22).

Regarding claim 6 Merriam teaches generating an alert tone indicating that a mobile station is presently located in a paging alert level-restricted area (see abstract and col. 7, lines 5-17 & 20-24).

Regarding claim 10 Hardouin, Murto, and Heinonen teach a device as recited in claim 9 except for displaying a message indicating restoration of a paging alert level preset by a user. Hardouin does teach sensors that control paging alert levels when a mobile station moves in or out of a paging alert level-restricted area (see col. 2, lines 36-46). Merriam teaches displaying a message indicating a paging alert (see col. 2, lines 40-42). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the invention adapt to include displaying a message indicating restoration of a paging alert level preset by a user because this would allow a paging alert level to be controlled without user intervention and the notification thereof.

Regarding claim 11 Hardouin, Murto, and Heinonen teach a device as recited in claim 2 except for generating an alert tone indicating restoration of a paging alert level preset by a user. Hardouin does teach sensors that control paging alert levels when a mobile station moves in or



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out of a paging alert level-restricted area (see col. 2, lines 36-46). Hardouin does teach a paging alert level set by a user (see col. 3, lines 40-44). Merriam teaches an alert tone indicating a paging alert (see col. 2, lines 40-42). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the invention adapt to include generating an alert tone indicating restoration of a paging alert level preset by a user because this would allow a paging alert level to be controlled without user intervention and the notification thereof.

Regarding claim 16 ). Hardouin teaches rejecting a restricted mode if a user rejects the restricted mode (see col. 3, lines 40-44). Merriam teaches setting a paging alert tone to a restricted mode if a user does not respond within a preset time (see col. 5, lines 18-22).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hardouin in view Murto, Heinonen, and Rydbeck.

Regarding claim 7 Hardouin, Murto, and Heinonen teach a device as recited in claim 2 except for displaying an icon indicating that a mobile station is presently in a paging alert level-restricted area. Heinonen does teach an alert indicating a mobile station is presently located in a paging alert level-restricted area (see abstract). Rydbeck teaches an alerting icon that appears on a display of a mobile station when a message is received on an alternate paging channel (see col. 7, lines 36-38 & 49-51). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the invention adapt to include displaying an icon indicating that a mobile station is presently in a paging alert level-restricted area because this would provide a mobile radio telephone that generates a variety of different signals to alert a user when a signaling message is received other than through a normal paging channel.

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Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Obayashi U.S Patent No. 5,566,358 discloses a mobile radio communication apparatus for registering a location.

Jeong U.S Patent No. 6,181,933 discloses a mobile communication system and controlling method thereof for paging and establishing dynamically paging area.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J Miller whose telephone number is 703-305-4222. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

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